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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,359	04/20/2004	Richard Carl Phelps	0120-029	2610

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EXAMINER

CLEARY, THOMAS J

ART UNIT	PAPER NUMBER
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2111

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/827,359

Applicant(s)

PHELPS ET AL.

Examiner

Thomas J. Cleary

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☒ Certified copies of the priority documents have been received in Application No. 09/787,353.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20051215.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Acknowledgment is made of Applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/787,353, filed on 16 March 2001.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the Applicant regards as his invention.
3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.
4. Claim 2 recites the limitation "transaction buses" in Line 14. There is insufficient antecedent basis for this limitation in the claim. It is unclear if the "transaction buses" of Line 14 are the same as the "transaction control buses" of Lines 12-13.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the Applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the Applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Number 5,925,118 to Revilla et al. ("Revilla").

7. In reference to Claim 1, Revilla discloses an apparatus for use in a computer system comprising: a bus architecture (See Figure 1); a plurality of modules connected to the bus architecture (See Figure 1 Numbers 20, 22, 26, and 28); a first arbiter means for controlling initiating transactions on the bus architecture (See Figure 1 Number 24 and Column 3 Lines 20-26); and a second arbiter means for controlling return transactions on the bus architecture (See Figure 1 Number 24 and Column 3 Lines 20-26).

8. In reference to Claim 2, Revilla discloses the limitations as applied to Claim 1 above. Revilla further discloses that the bus architecture has separate read (See

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Figure 1 Number 34), write (See Figure 1 Number 32), and transaction control buses (See Figure 1 Number 36), and wherein the first arbiter means controls use of the write and transaction control buses (See Column 3 Lines 20-26, Column 6 Lines 49-56, and Column 8 Lines 37-45) and the second arbiter means controls use of the read bus (See Column 3 Lines 20-26, Column 6 Lines 49-56, and Column 8 Lines 37-45).

9. In reference to Claim 3, Revilla discloses the limitations as applied to Claim 1 above. Revilla further discloses a computer system comprising the apparatus (See Column 4 Lines 45-63).

10. In reference to Claim 4, Revilla discloses the limitations as applied to Claim 1 above. Revilla further discloses an integrated circuit comprising the apparatus (See Column 4 Lines 45-63).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Revilla as applied to Claim 1 above, and further in view of US Patent Number 4,094,000 to Brudevold ("Brudevold").

13. In reference to Claim 5, Revilla teaches the limitations as applied to Claim 1 above. Revilla does not teach a graphics processing system comprising the apparatus. Brudevold teaches a graphics processing system having a plurality of interconnected master and slave devices (See Abstract, Figures 1-3, and Column 7 Lines 6-17).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the graphics processing system of Brudevold with the bus system of Revilla, resulting in the invention of Claim 5, in order to reduce the number of buses and, therefore, the number of connections required while still providing acceptable data throughput (See Column 1 Lines 19-23 and Column 2 Lines 17-31 of Revilla).

14. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Revilla as applied to Claim 1 above, and further in view of US Patent Number 5,924,926 to Brown ("Brown").

15. In reference to Claim 6, Revilla teaches the limitations as applied to Claim 1 above. Revilla does not teach a games console comprising the apparatus. Brown

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teaches a games console having a plurality of interconnected master and slave devices (See Figure 5 and Column 7 Lines 1-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the games console of Brown with the bus system of Revilla, resulting in the invention of Claim 6, in order to reduce the number of buses and, therefore, the number of connections required while still providing acceptable data throughput (See Column 1 Lines 19-23 and Column 2 Lines 17-31 of Revilla).

Drawings

16. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Figure 1 Numbers 1 and 2; Figure 13 Letters D and H; Figure 14 Numbers 28 and 29; Figures 15, 16, 17, 18, and 19 Number 30; Figure 21 Numbers 35, 36, and 37; Figure 22 Numbers 39, 40, 41, and 42; Figure 26 Numbers 56, and 57; Figure 28 Number 73; Figure 29 Number 84. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

17. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "A" has been used to designate both "start" in Figure 13

and "assign initial stack positions" on Page 17 Lines 23-25. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

18. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "B" has been used to designate both "assign initial stack positions" in Figure 13 and "receive respective transaction requests" on Page 17 Lines 30-32. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

19. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "C" has been used to designate both "receive transaction request" in Figure 13 and "determine highest priority level" on Page 18 Lines 3-7. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Conclusion

20. The following prior art made of record and not relied upon is considered pertinent to Applicant's disclosure: US Patent Number 6,081,860 to Bridges et al.; US Patent Number 5,949,785 to Beasley; US Patent Number 4,456,965 to Graber et al.; US Patent Number 5,060,145 to Sheuneman et al.; and US Patent Number 4,811,007 to Schreiber.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Thomas J. Cleary whose telephone number is 571-272-3624. The Examiner can normally be reached on Monday-Thursday (7-3:30), Alt. Fridays (7-2:30).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mark H. Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

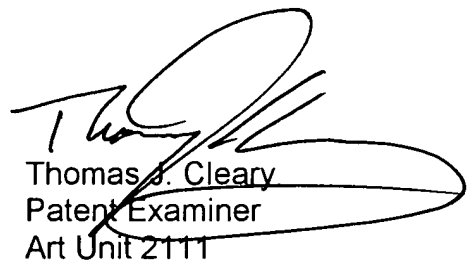
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



PAUL R. MYERS
PRIMARY EXAMINER

TJC



Thomas J. Cleary
Patent Examiner
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